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Supplemental Information

Let-7 Suppresses B Cell Activation through Restricting the Availability of Necessary Nutrients

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Supplemental Information

Supplemental Figures

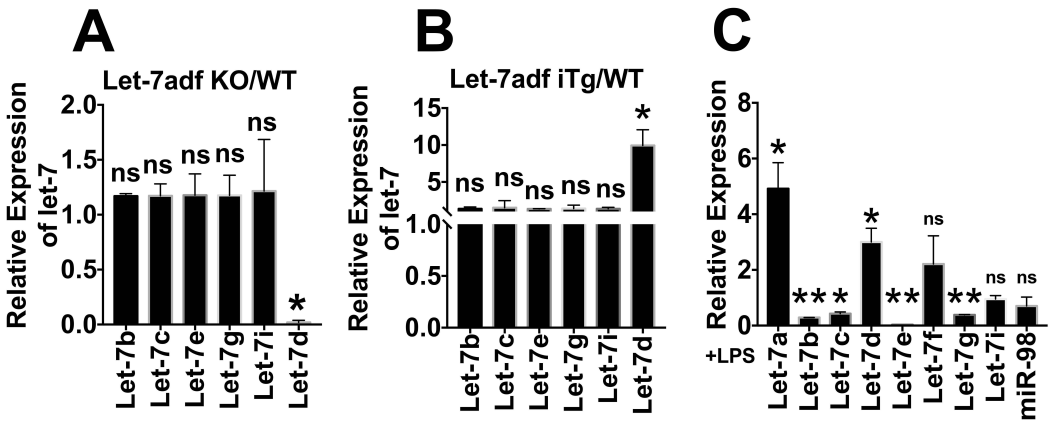

Figure S1, related to Figure 2: The expression of let-7 family members. (A-B) The expression levels of let-7 family members were determined by RT-qPCR in both let-7adf KO (A) or iTg (B) models. (C) Let-7 expression was determined by RT-qPCR in LPS-activated B cells.

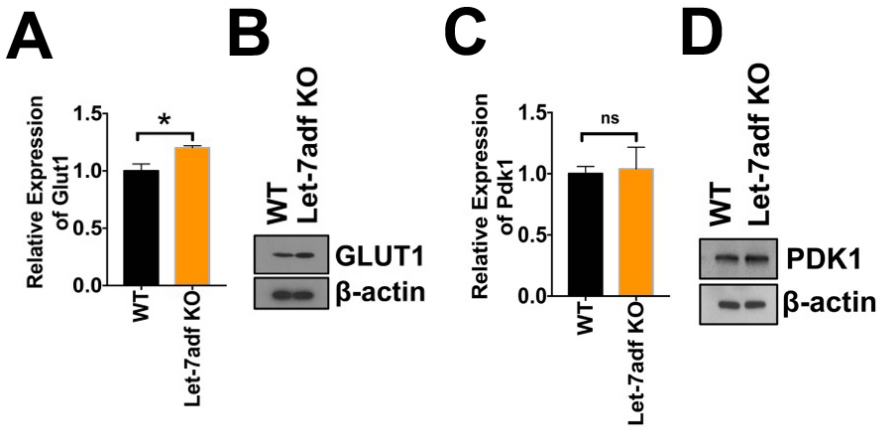

Figure S2, related to Figure 3: The expression of Glut1 and Pdk1 in let-7adf KO B cells. (A) Glut1 mRNA expression determined by RT-qPCR in WT or miR-let-7a-1/let-7d/let-7f-1 cluster KO B cells. (B) The Glut1 protein expression in B

cells from WT or miR-let-7a-1/let-7d/let-7f-1 cluster KO mice determined by Western blot. (C) Pdk1 mRNA expression determined by RT-qPCR of Pdk1 in WT or miR-let-7a-1/let-7d/let-7f-1 cluster KO B cells. (D) The Pdk1 protein expression in B cells from WT or miR-let-7a-1/let-7d/let-7f-1 cluster KO mice determined by Western blot.

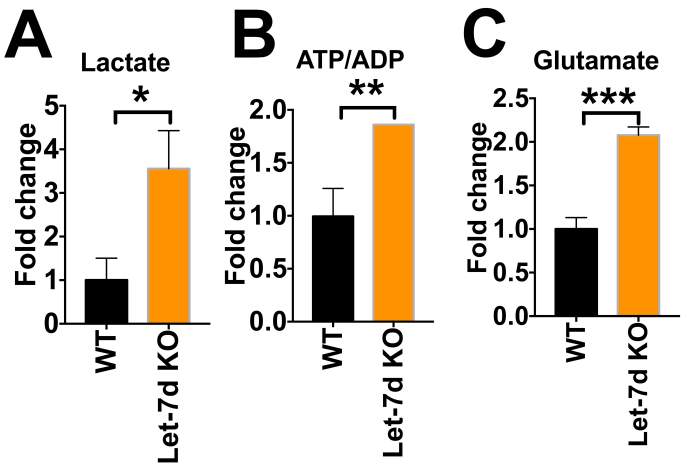

Figure S3, related to Figure 3: Intracellular levels of key glycolytic intermediates as well as glutamine and glutamate. Intracellular levels of key glycolytic intermediates as well as glutamine and glutamate were measured by 1D-NMR analysis and normalized to cell numbers (n = 3).

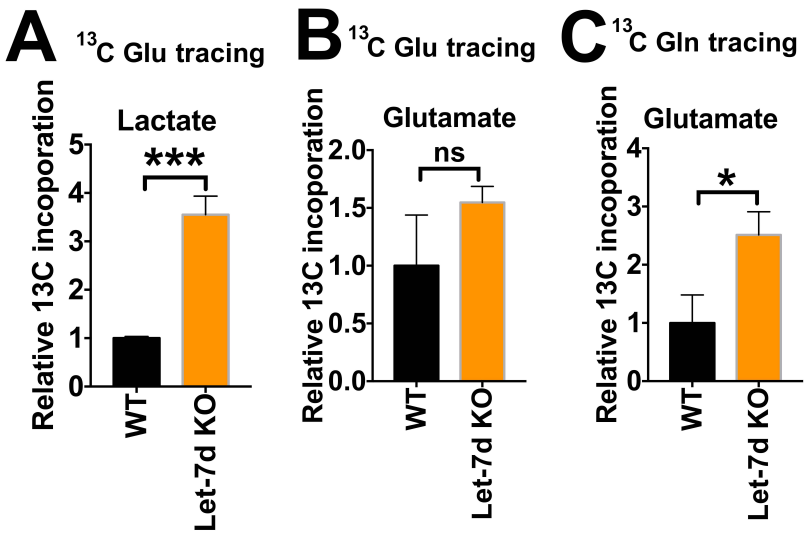

Figure S4, related to Figure 3: Intracellular levels of ^{13}C-containing metabolites in ^{13}C-glucose and ^{13}C-glutamine tracing. (A) Indicated B cells were labeled with [U-13C] glucose for 6h before cell lysates were measured by 2D-NMR analysis (n = 3). (B-C) Indicated B cells were labeled with [U-13C] glutamine for 6h before cell lysates were measured by 2D-NMR analysis (n = 3).

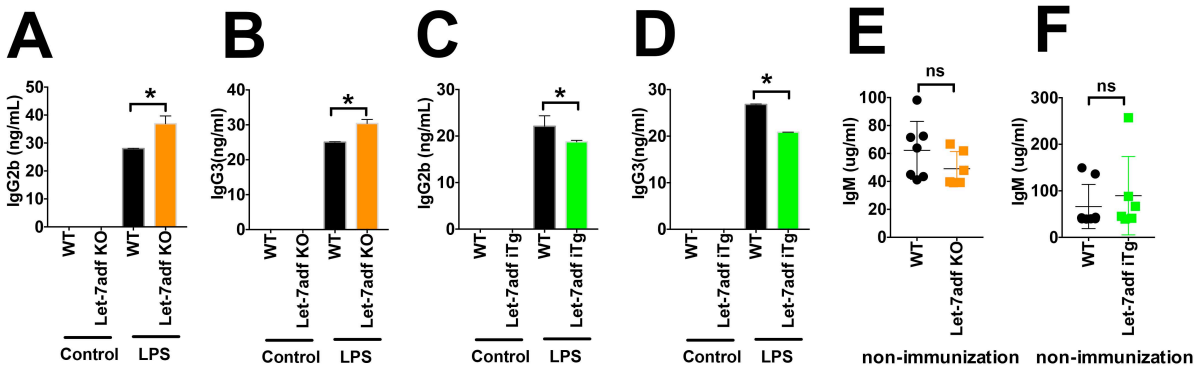

Figure S5, related to Figure 2: The effect of let-7adf is not limited to IgM production. (A-B) Purified murine B cells from the let-7adf cluster KO mice and WT control mice were cultured in medium alone to maintain viability or stimulated with LPS and ELISA for IgG2b (A) and IgG3 (B) secretion after 7 days. (C-D)

Purified murine B cells from the let-7adf cluster iTg mice and WT control mice were cultured in medium alone to maintain viability or stimulated with LPS and ELISA for IgG2b (C) and IgG3 (D) secretion after 7 days. (E-F) Quantification of total IgM in the serum of the let-7adf cluster KO/WT mice (E) and let-7adf cluster iTg/WT mice (F) under non-immunization status.

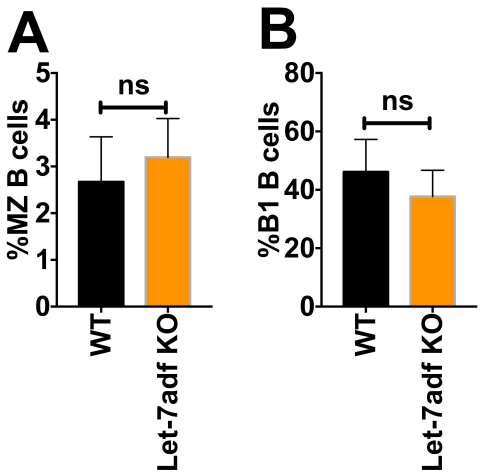

Figure S6, related to Figure 2: The percentage of MZ B cell and B1 B cells in let-7adf KO mice. The proportion of marginal zone B cells in the spleen (A) and B1 B cells in the peritoneal cavity (B) of let-7adf KO and WT mice.